

ABSTRACT

The present scheme provides a mechanism for preventing traffic on one ore more LAN ports from dramatically affecting performance on other LAN ports of a router resource. In one embodiment, the utilization of a router resource at the interface between a first
5 number of local area network ports and a second number of wide area network links by each LAN port is controlled according to the bandwidth availability of corresponding bundles of the WAN links assigned to each of the LAN ports and a switching capacity of the router resource. In this scheme, individual ones of the LAN ports may be permitted to exceed their fair share of the switching capacity of the router resource, but only if a current switching
10 load due to the traffic from all of the LAN ports is less than the maximum switching capacity for the router resource as a whole. If the current switching load due to traffic from all of the LAN ports is equal to the maximum switching capacity of the router resource, however, those of the LAN ports that are attempting to utilize more than their fair share of the bandwidth availability or the switching capacity may be throttled back. Such throttling back
15 may include dropping packets inbound on those LAN ports that are attempting to utilize more than their fair share of the resources, preferably at the entry point to the router resource.